Zoological Research

A NEW GENUS OF BLENNOCAMPINAE FROM TIBET, CHINA

(HYM.:Tenthredinidae)

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Abstract Notodontidea, a new genus and N. chui, a new species, from Tibet are described and figured. Its phylogeny and the relationship with some genera of Blennocampinae are also briefly discussed. The tribe Ceratuhni Smith 1969 is synonymized with Phymatocerini Rohwer 1911 (= Ceratuhni Smith 1969 syn. nov.).

Key words Notodontidea chui, New genus, New species, Blennocampinae, China

While studying Chinese Blennocampinae, I found a new genus and a new species belonging to the tribe Phymatocerini Rohwer 1911. The holotype is deposited in the Insect Collection of Central South Forestry University, Zhuzhou, Hunan Province, China.

Notodontidea, new genus

Description: Body robust. Antenna distinctly serrate; second segment twice as wide as long; each of segments 3 to 8 abruptly and widely expanded at uppper apex; flagellar segments subequal in length; third segment only slightly shorter than fourth segment; last segment longest (Fig. 1). Clypeus slightly convex and shallowly emarginate (Fig. 4); malar space wide, about $1.5 \times$ diameter of front ocellus; postgenal carina absent; postorbital groove indistinct; postocellar area transverse; eyes small and round, distance between eyes below twice as long as height of eye (Figs. 7.8). Prepectus absent. Tarsal claw bifid and sharply bent, inner tooth distinctly longer than outer tooth and placed apically of the middle; basal lobe absent. Inner spur of foretibia simple at apex (Fig. 3). Cenchri large, distance between them about half breadth of one. Forewing with stub of 2A+3A furcate at apex (Figs. 2, 5); veins M bent at middle and subparallel with 1 m-cu in distal third and convergent in basal two thirds; third cubital cell slightly longer than second one. Hindwing with m-cu present and enclosing cell M; anal cell with very long petiole, about as long as the length of anal cell (Fig. 2). Propodeum narrowly divided

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mesally and membranous area absent.

Type species: Notodontidea chui, sp. nov.

Etymology: The genus is named from the antennal character. Gender; feminine.

Distribution: Tibet, China.

Remarks: Distinctly serrate antennae have been found in two genera within subfamily Blennocampinae, Salatigia Enslin 1911 from Java and Sumatra, and MacGillivray 1908 from North America; both are monotypic genera. Salatigia, however, has anal cells in the fore wing and belongs to tribe Lycaotini, from which the new genus can be easily separated. Notodontidea is apparently allied to Ceratulus, but the latter one has many different characters: the 4th segment of antenna longer than the 5th and twice the length of the 3rd segment, the malar space less than half the diameter of front occllus, the postorbital groove absent, the tarsal claw bifid and subequal in length and closely appressed to each other, the front wing with stub of 2A+3A straight at its apex, and the inner spur of foretibia furcate at its apex. The new genus also resembles Rhadinoceraea Konow s.str. and Corpilus Malaise, but Rhadinoceraea has a short and stout antenna with the 2nd segment as long as wide, the malar space linear or narrow and less than one-half diameter of the front ocellus, post orbital groove deep and with a pit, tarsal claw with a small inner tooth, the inner spur of foretibia furcate at its apex and the clypeus truncate; Corpilus has a simple antenna with distinct antennal organs, the malar space linear, post orbital groove distinct, the clypeus truncate, distance between antennal sockets narrower than the distance between antennal socket and eye, eyes large and elongate with the distance between them below about equal to the height of an eye, mesopleuron with an indistinct prepectus, posttergite linear, distance between cenchri equal to the breadth of a cenchrus, the 1st discoidal cell transversal, lst cubital cell 4-6 times wider than long, Ir-m joins 2nd cubital cell at its apical 2/5, 2r-m nearly interstitial with the 2nd cubital cross vein, 3rd cubital cell equal to lst and 2nd cubital cells combined, the pedicle of hind anal cell about half as long as the anal cell, the inner spur of foretibia furcate at its apex.

Notodontidea chui, sp. nov.

Female: Length 7.8 mm. Entirely bright dark brown. Wings slightly brownish hyaline: costa, stigma and the anterior margin of cell R₁ of forewing brown.

Head seen from above transverse, parallel behind eyes; eyes small and round, about as long as temples in dorsal view; postocellar area about 2 × as wide as long (Fig. 9); lateral furrows short but distinct and deep, postocellar furrow indistinct, interocellar furrow very deep (Fig. 9), frontal area elevated, median fovea small and shallow, lateral foveae large and very deep; inner dorsal margin of each antennal socket strongly raised into an acute process (Figs. 7,9). Palpi short.

Prescutum, mesoscutum and mesoscutellum nearly flattened. Nervellus of forewing

at the middle of lower margin of discoidal cell. Hind basitarsus as long as following three segments combined.

Abdomen normal. Saw sheath short and oblong from above, triangular in lateral view, dorsal margin nearly straight with ventral margin and apex round (Fig. 10).

Head very minutely punctured in front, other parts of head, thorax and abdomen entirely impunctate, shining.

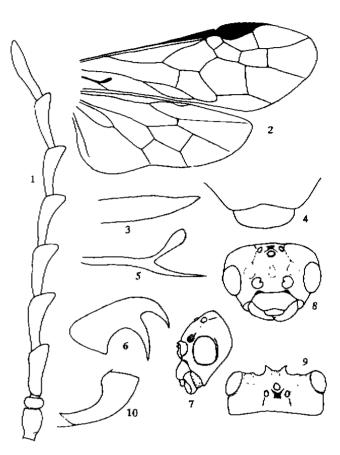
Male: Unknown.

Distribution: Tibet, China.

Holotype: Female, labeled "Yadong, Tibet, 2800 m., June 6, 1961, Coll. Wang Linyao".

Etymology: This new species is dedicated to Professor Hongfu Chu, my supervisor, who was the first Chinese entomologist to study Chinese fauna of Tenthredinidae.

Discussion: It should be pointed out that the antenna of *Notodontidea* is quite different from those of *Ceratulus* and *Saltigia*, though all the three genera have distinctly serrate antennae. The latter two genera have ventral-serrate antennae, but the new genus has a dorsal-serrate antenna. What bearing this difference has on the phylogeny of Blenno-campinae remains to be elucidated.



Figures 1-10 Notodontidea chui

- 1: Antenna. 2: Wings, 3: Front tibial spur.
- 4: Clypeus and labrum 5: Stub of 1A+2A of forewing.
- 6: Claw. 7: Head in lateral view.
- 8; Head in front view. 9: Head in dorsal view.
- 10: Sheath.

Comparing the new genus Notodontidea with the genus Ceratulus and the genera of the tribe Phymatocerini, it seems to me that the former one is much closer to the genus Rhadinoceraea of Phymatocerini than to Ceratulus. It is possible that the serrate antennae are developed from the long and compressed and slightly expanded antennae, which can be found in some species of Rhadinoceraea. It seems reasonable that the ventral and dorsal serrate antennae have evolved from the primitive one separately in different directions. Therefore, if we erect a tribe Ceratulini for the two genera with serrate

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antennae, both the tribe Ceratulini (including Ceratulus MacG. and Notodontidea, n. gen.) and Phymatocerini would be paraphyletic taxa. It would be better to put Ceratulus and Notodontidea into Phymatocerini to keep the tribe Phymatocerini monophyletic. Hence, we downgrade the tribe Ceratulini Smith 1969 as a synonymy of Phymatocerini Rohwer 1911 (= Ceratulini Smith 1969, n. syn.).

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蔺叶蜂亚科一新属新种

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本文记述蔺叶蜂亚科 1 新属新种: 朱氏背齿叶蜂 Notodontidea chui gen. sp. nov. 新属隶属于等角叶蜂族 Phymatocerini、与窝眶叶蜂属 Rhadinoceraea Konow 及扁室叶蜂属 Corpilus Malaise 较近似; 窝眶叶蜂属触角粗短且简单、第 2 节长等于宽、唇基截型、颚眼距狭 于 1/2 单眼直径, 后眶沟深并具陷窝, 爪具微小内齿, 前足胫节内距分叉等易于新属区别; 扁室 叶蜂属唇基截型, 颚眼距线状、后眶沟较明显, 触角窝间距狭于复眼-触角窝距, 复眼大且长型、 间距约等于眼高, 触角简单并具触角器, 具痕状胸腹侧片,小盾片附片极狭, 后胸淡膜区间距等 于淡膜区宽, 前足胫节内距分叉, 前翅第 1 盘室横宽型, 第 1 肘室十分扁宽, 第 1 回脉交于第 2 肘室中部外侧、第2回脉与第2肘横脉几乎相接,第3肘室等长于1+2肘室之和,后翅臀室柄仅 为后臀室 1/2 长等与新属区别较大。新属具背齿型触角,与蔺叶蜂亚科各属均不同。在简要 讨论了新属与近源属的关系后, 齿角叶蜂族 Ceratulini Smith 1969 被降为等角叶蜂族 Phymatocerini 的次异名。

关键词 朱氏背齿叶蜂,新属,新种,蔺叶蜂亚科,

